

1 through a one-time fee when they opt out. For customers that already have an  
2 advanced meter, the up-front fee will also include the cost to remove the advanced  
3 meter and re-install an advanced meter once non-standard metering service is  
4 terminated. In addition, the Company proposes to charge opt-out customers a  
5 monthly fee associated with the ongoing monthly costs of manual meter reading  
6 and resulting customer service activities necessary to schedule, bill, and support  
7 these opt-out customers. The Company is also proposing to recover the rate case  
8 expenses associated with developing the non-standard metering services options  
9 in the one-time and monthly fees consistent with Rule 25.133(e)(1). Once those  
10 expenses are recovered, the Company would make a filing to adjust the fees  
11 accordingly.

12  
13 Q33. PLEASE DESCRIBE THE EXTENT TO WHICH THE BACK-OFFICE COSTS  
14 THAT ARE NEW AND FIXED VARY DEPENDING ON THE NUMBER OF  
15 CUSTOMERS RECEIVING NON-STANDARD METERING SERVICE.

16 A. The billing programming changes to build the one-time and monthly fees in the  
17 Customer Care System ("CCS") are fixed and will not vary with the number of  
18 customers receiving non-standard metering service. The monthly fee includes the  
19 costs of two ESI customer service clerks. To the extent that the number of opt-out  
20 customers are significantly less or greater than expected, ETI may have to add to  
21 or reduce the number of opt-out customer services clerks accordingly. Mr. Pierce  
22 describes these costs in his Direct Testimony.

1 Q34. HOW DID THE COMPANY ESTIMATE THE NUMBER OF OPT-OUT  
2 CUSTOMERS?

3 A. Based on actual opt-out rates of other utilities that have deployed an AMS, the  
4 Company estimates that approximately 0.25% of ETI's customers may choose to  
5 opt out of having an advanced meter at their premises. This equates to  
6 approximately 1,200 ETI customers. The 0.25% estimate is based on the average  
7 reported opt-out rate of other electric utilities, excluding several outliers that have  
8 either much higher or much lower than average opt-out rates. See Exhibit JAL-4  
9 for the opt-out rates used to determine the 0.25% estimate.

10

11 Q35. WHAT WILL HAPPEN IF THE ULTIMATE NUMBER OF CUSTOMERS  
12 WHO OPT OUT OF AMS METERING IS HIGHER OR LOWER?

13 A. The Commission's Substantive Rule 25.133(e)(2) provides that ETI can apply to  
14 change its initial up-front and/or monthly fees. Should the number of actual opt-  
15 out customers be materially different, ETI could make a compliance filing to  
16 update the fees.

17

18 Q36. DOES ETI PLAN TO TRACK ITS ACTUAL EXPENSES OTHER THAN  
19 RATE CASE EXPENSES, RELATED TO THE PROVISION OF NON-  
20 STANDARD METERING SERVICE AND RECONCILE THEM LATER?

21 A. No. Unlike Rule 25.130 requirements for the AMS Surcharge, Rule 25.133 does  
22 not require tracking non-standard metering service fees, and the costs associated  
23 with establishing systems and processes to track actual expenses incurred and

1 actual revenues received in the provision of non-standard metering service would  
2 be significant. Such costs would, under the provisions of the opt-out Rule, need  
3 to be borne by those customers requesting non-standard metering service. In an  
4 effort not to unduly burden those customers, ETI does not plan to track and  
5 reconcile actual expenses and revenues from the provision of non-standard  
6 metering service. Rather, the fees can be modified if material differences are  
7 identified between actual experience and the assumptions used in developing the  
8 initial fees.

9  
10 Q37. HAS THE COMPANY CALCULATED THE ONE-TIME AND MONTHLY  
11 FEES FOR NON-STANDARD METERING SERVICE?

12 A. Yes. The fees assume use of Company service personnel to perform the meter  
13 reads, tests, and removal/installation. The calculations assume that the travel time  
14 to read an opt-out customer's meter averages 18.5 minutes, site time averages 5  
15 minutes for reads, and initial meter testing and meter removal/installation  
16 averages 30 minutes.<sup>32</sup> Table 4 below shows the components of the up-front and  
17 monthly fees. Mr. Pierce provides the calculation of and support for the cost  
18 components included in these opt-out fee calculations.

---

<sup>32</sup> Should new handheld meter reading devices or other equipment be necessary in the future to perform meter reads for opt-out customers, the capital and O&M costs associated with that new equipment should be added to the fee components.

1

**Table 4**

Ln #	Up-front Fee Components	Estimated Cost	Estimated # Opt Out Customers	Estimated Fee
1	Billing programming changes to build the one-time and monthly fees in CCS	\$ 44,000	1,192	\$ 36.91
2	Barrel lock and seal for non-advanced meters	\$21.47/ea		\$ 21.47
3	Opt out paperwork mailing costs for one-time mailing to customers, to enroll and confirm opt-out election	\$4.86/ea		\$ 4.86
4	Trip charge: employee labor and vehicle costs to perform field test and inspect meter	\$47.55/ea		\$ 47.55
5	Rate Case Expenses (50% of total/number of opt out customers)	\$ 76,668		\$ 32.16
6	<b>Total Up-Front Fee for Opt-Out - Customer retains existing meter</b>			<b>\$ 142.95</b>
7	Meter fee for installing digital non-communicating meter.	\$14.11/ea		\$ 14.11
8	<b>Total Up-Front Fee for Opt-Out - Replace existing non-standard meter with digital non-communicating meter</b>			<b>\$ 157.05</b>
9	Trip charge: employee labor and vehicle costs to perform disconnection of non-standard metering service and to install advanced meter, paid up-front.	\$47.55/ea		\$ 47.55
10	<b>Total Up-Front Fee for Opt-Out - Replace AMI Meter with digital non-communicating meter</b>			<b>\$ 204.60</b>
	Monthly Fee components	Estimated Cost	Estimated # Opt Out Customers	Estimated Monthly Fee
11	Trip charge: employee labor and vehicle costs for meter reads	\$27.33/ea		\$ 27.33
12	Rate Case Expense (50% of total/number of opt out customers, amortized for 36 months)	\$ 76,668	1,192	\$ 0.89
13	ETI Share of Salary for two ESI customer service clerks (Estimate = \$140K annual labor * ETI Rate\ETI Opt outs)	\$ 21,273	1,192	\$ 1.49
14	<b>Total Monthly Fee for Opt Out Customers</b>			<b>\$ 29.71</b>

2 Q38. PLEASE EXPLAIN THE PROCESS ETI WILL USE IF A CUSTOMER SEEKS  
3 TO TERMINATE NON-STANDARD METERING SERVICE.

4 A. Consistent with Commission Rule 25.133, ETI will terminate non-standard  
5 metering service upon receiving notice from a customer that the customer no  
6 longer desires to receive non-standard metering service. Upon termination of

1 non-standard metering service, or if a customer who was receiving non-standard  
2 metering service moves, the Company will install an advanced meter at that  
3 location.

4

5 Q39. HAS THE COMPANY INCLUDED A PROPOSED OPT-OUT SCHEDULE,  
6 INCLUDING THE ASSOCIATED CHARGES, IN THIS PROCEEDING?

7 A. Yes. Those fees are included in the revised Schedule MES presented, discussed,  
8 and supported by Mr. Pierce.

9

10 **VIII. CONCLUSION**

11 Q40. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

12 A. Yes, at this time.

### Listing of Previous Testimony Filed by Jay A. Lewis

<u>DATE</u>	<u>TYPE</u>	<u>JURISDICTION</u>	<u>DOCKET NO.</u>
August 2004	Direct	PUCT	30123
March 2007	Rebuttal	APSC	06-101-U
April 2007	Sur-Surrebuttal	APSC	06-101-U
September 2007	Direct	PUCT	34800
February 2008	Rebuttal	APSC	06-152-U
March 2008	Sur-Surrebuttal	APSC	06-152-U
May 2008	Rebuttal	PUCT	34800
October 2008	Direct	MPSC	2008-AD-381
November 2010	Supplemental	FERC	EL10-55-001
May 2011	Supplemental Direct	APSC	10-011-U
August 2011	Rebuttal	APSC	10-011-U
August 2011	Sur-Surrebuttal	APSC	10-011-U
September 2011	Direct	PUCT	39741
November 2011	Direct	CNO	UD-11-01
November 2011	Rebuttal	APSC	11-069-U
December 2011	Sur-Surrebuttal	APSC	11-069-U
December 2011	Supplemental Direct	PUCT	39896
April 2012	Rebuttal	PUCT	39896
June 2012	Cross Answering	CNO	UD-11-01
August 2012	Rebuttal	CNO	UD-11-01
September 2012	Direct	APSC	12-069-U
September 2012	Direct	CNO	UD-12-01
September 2012	Direct	FERC	ITC Application
September 2012	Direct	LPSC	U-32538
October 2012	Direct	MPSC	2012-UA-358
January 2013	Direct	LPSC	U-32148
January 2013	Direct	CNO	UD-08-03
February 2013	Direct	PUCT	41223
February 2013	Direct	PUCT	41235
February 2013	Direct	LPSC	U-32707
February 2013	Direct	LPSC	U-32708
March 2013	Direct	APSC	13-028-U
March 2013	Supplemental	ENO	UD-12-01

<b><u>DATE</u></b>	<b><u>TYPE</u></b>	<b><u>JURISDICTION</u></b>	<b><u>DOCKET NO.</u></b>
April 2013	Direct	PUCT	41235
April 2013	Supplemental	PUCT	41235
May 2013	Rebuttal	PUCT	41223
May 2013	Rebuttal	APSC	12-069-U
May 2013	Rebuttal	LPSC	U-32538
June 2013	Rebuttal	CNO	UD-08-03
June 2013	Rebuttal	CNO	UD-12-01
June 2013	Sur-Surrebuttal	APSC	12-069-U
July 2013	Supplemental	APSC	12-069-U
July 2013	Rebuttal	LPSC	U-32675
August 2013	Rejoinder Testimony	CNO	UD-12-01
August 2013	Rebuttal	APSC	13-028-U
August 2013	Supplemental Rebuttal	APSC	12-069-U
September 2013	Sur-Surrebuttal	APSC	13-028-U
September 2013	Direct	PUCT	41850
September 2013	Direct	PUCT	41791
November 2013	Rebuttal	PUCT	41850
December 2013	Settlement	LPSC	U-32708
February 2014	Rebuttal	CNO	UD-13-01
April 2014	Rejoinder Testimony	CNO	UD-13-01
June 2014	Direct	MPSC	EC-123-0082-00
June 2014	Direct	MPSC	EC-123-0082-00
September 2014	Direct	LPSC	U-33244
October 2014	Direct	CNO	UD-14-02
November 2014	Direct	CNO	UD-14-03
January 2015	Supplemental	CNO	UD-14-01
January 2015	Direct	LPSC	UD-33510
January 2015	Direct	APSC	14-118-U
February 2015	Direct	CNO	UD-15-01
April 2015	Direct	APSC	15-015-U
April 2015	Rebuttal	CNO	UD-14-01
May 2015	Rebuttal	LPSC	U-33244
June 2015	Rebuttal	LPSC	U-33510
June 2015	Direct	PUCT	44704
June 2015	Direct	LPSC	U-33033

<b><u>DATE</u></b>	<b><u>TYPE</u></b>	<b><u>JURISDICTION</u></b>	<b><u>DOCKET NO.</u></b>
June 2015	Direct	LPSC	U-33645
July 2015	Rebuttal	APSC	14-118-U
August 2015	Sur-Surrebuttal	APSC	14-118-U
August 2015	Supplemental	CNO	UD-15-01
August 2015	Direct	LPSC	U-33770
September 2015	Supplemental Rebuttal	LPSC	U-33510
October 2015	Rebuttal	APSC	15-015-U
December 2015	Sur-Surrebuttal	APSC	15-015-U
January 2016	Rebuttal	LPSC	33633
March 2016	Rebuttal	LPSC	33770
September 2016	Direct	APSC	16-060-U
October 2016	Direct	CNO	UD-16-04
November 2016	Direct	LPSC	U-34320
November 2016	Direct	MPSC	2016-UA-261
June 2017	Rebuttal	APSC	16-060-U



This exhibit contains information that is **highly sensitive** and will be provided under the terms of the Protective Order (Confidentiality Disclosure Agreement) entered in this case.

[DATE]

[CUSTOMER NAME]  
[MAILING ADDRESS]  
[MAILING CITY STATE ZIP]

Dear Customer,

In \_\_\_\_\_, the Public Utility Commission of Texas (PUC or Commission) approved Entergy Texas, Inc.'s request to deploy an Advanced Metering System (AMS). Consistent with the Commission rules related to AMS, a customer may choose a non-standard meter as an alternative to an advanced meter.

At your request, Entergy Texas, Inc. will not install an advanced meter at your premises. In order to retain the existing non-standard meter or to choose another non-standard meter option, you must sign this document and return it to us along with the applicable non-refundable one-time fee listed below by MM/DD/YYYY. Once your request has been completed, you will also be required to pay the monthly fee shown below, which will be included in your monthly electric bill.

**Commission Approved Fees**

**Non-Refundable One-Time fee (Options):**

- |                                                                                        |          |
|----------------------------------------------------------------------------------------|----------|
| <input type="checkbox"/> Retain existing non-standard meter*                           | \$142.95 |
| <input type="checkbox"/> Replace existing meter with a digital non-communicating meter | \$157.05 |

**Monthly Fee\*\*** (same for all meter types): **\$ 29.71**

\*If your existing non-standard meter does not meet accuracy and safety standards, it will be replaced with a digital non-communicating meter, and additional charges will apply.

\*\*Monthly fee is in addition to all other applicable charges, including the monthly AMS Surcharge and is subject to change upon approval by the PUC.

The PUC rules require that you be advised of the following limitations for choosing non-standard metering service:

- You will be required to pay the non-refundable costs associated with the initiation of non-standard metering service and the ongoing costs associated with the manual reading of the meter and billing, and other fees and charges that may be assessed by Entergy Texas, Inc. that are associated with the non-standard metering service.
- You may experience longer restoration times in case of a service interruption or outage.
- You are required to provide Entergy Texas, Inc. with sufficient access to properly operate and maintain the meter, including reading and testing the meter.

In order to complete your request to retain the existing non-standard meter or replace it with a digital non-communicating meter option, you must:

- Select one of the options above, sign and return this document to us, and
- Pay the applicable non-refundable one-time fee listed above for your selected option.

Both the signed document and payment (by Cashier's Check or Money Order made payable to Entergy Texas, Inc. ATTN: \_\_\_\_\_) should be sent to \_\_\_\_\_. Your request will be completed within 30 days of receipt of the signed document and full payment of the non-refundable one-time fee.

**Failure to complete these steps by MM/DD/YYYY will result in the replacement of your existing non-standard meter with a standard advanced meter.** If you have any questions, please call the Entergy Customer Service Center at (\_\_\_\_\_).

**Acknowledgement: I understand and accept the above fees, requirements and limitations associated with non-standard metering service and hereby request that you initiate non-standard metering service at the address above.**

\_\_\_\_\_  
Customer signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Customer printed name

\_\_\_\_\_  
Phone number

[DATE]

[CUSTOMER NAME]  
[MAILING ADDRESS]  
[MAILING CITY STATE ZIP]

Re:[SERVICE ADDRESS]

Dear Customer,

In \_\_\_\_\_, the Public Utility Commission of Texas (PUC or Commission) approved Entergy Texas, Inc.'s request to deploy an Advanced Metering System (AMS). Consistent with the Commission rules related to AMS, a customer may choose a non-standard meter as an alternative to an advanced meter.

You have requested that Entergy Texas, Inc. replace the existing advanced meter at your premises with a non-standard meter. In order to complete this request, you must sign this document and return it to us along with the applicable non-refundable one-time fee listed below. Once your request has been completed, you will also be required to pay the monthly fee shown below, which will be included in your monthly electric bill.

**Commission Approved Fees**

**Non-Refundable One-Time fee:**

- Replace existing advanced meter with a digital non-communicating meter \$204.60

**Monthly Fee\*** (same for all meter types): \$29.71

\*Monthly fee is in addition to all other applicable charges, including the monthly AMS Surcharge and is subject to change upon approval by the PUC.

The PUC Rules require that you be advised of the following limitations for choosing non-standard metering service:

- You will be required to pay the non-refundable costs associated with the initiation of non-standard metering service and the ongoing costs associated with the manual reading of the meter and billing, and other fees and charges that may be assessed by Entergy Texas, Inc. that are associated with the non-standard metering service.
- You may experience longer restoration times in case of a service interruption or outage.
- You are required to provide Entergy Texas, Inc. with sufficient access to properly operate and maintain the meter, including reading and testing the meter.

In order to complete your request to replace the current standard advanced meter with a non-standard meter, you must:

- Sign and return this document to us, and
- Pay the applicable non-refundable one-time fee listed above.

Both the signed document and payment (by Cashier's Check or Money Order made payable to Entergy Texas, Inc. ATTN: \_\_\_\_\_) should be sent to \_\_\_\_\_. Your request will be completed within 30 days of receipt of the signed document and full payment of the non-refundable one-time fee.

**Acknowledgement: I understand and accept the above fees, requirements and limitations associated with non-standard metering service and hereby request that you initiate non-standard metering service at the address above.**

\_\_\_\_\_  
Customer signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Customer printed name

\_\_\_\_\_  
Phone number

**Exhibit JAL-4**  
**Opt-out Rates of Other Utilities**

<b>Utility</b>	<b>Opt-out rate</b>
<b>PG&amp;E</b>	0.95%
<b>Southern California Edison</b>	0.45%
<b>NV Energy</b>	0.31%
<b>DTE Electric Company</b>	0.31%
<b>San Diego Gas &amp; Electric</b>	0.19%
<b>Florida Power &amp; Light</b>	0.13%
<b>Georgia Power</b>	0.02%
<b>AEP Texas</b>	0.01%
<b>Oncor</b>	0.01%
<b>CenterPoint</b>	0.00%
<b>Average opt-out rate</b>	<b>0.24%</b>

Sources:

1. The opt-out rates shown in the table are calculated as the number of reported opt-out customers divided by the number of total customers for each utility. Sources for the number of opt-out customers at each utility is provided from public sources listed below. Energy Information Agency (EIA) Form 826 data reported for December 2015 was used for the total customer count at each utility.
2. Pacific Gas & Electric, Southern California Edison and San Diego Gas & Electric opt-out customers: California Public Utility Commission, California Smart Grid: Annual Report to the Legislature (also known as "2015 Smart Grid Report"), January 1, 2016, page 17.
3. NV Energy, Electric Rate Case, Prepared Direct Testimony of Gary P. Smith, filed in Docket No. 14-050004 to the Public Utilities Commission of Nevada on May 2, 2014, page 17.
4. DTE Electric Company, Electric Rate Case, Direct Testimony of Robert E. Sitkauskas, filed in Case No. U-18014 to the Michigan Public Utility Commission on February 1, 2016, page RES-19.
5. Florida Power & Light Company, Smart Meter Progress Report, filed in Docket No. 16-0002-EG to Florida Public Service Commission on February 29, 2016, page 4.
6. Georgia Power: Savannah Morning News, "For a price, Georgia Power customers can opt out of smart meters," January 22, 2014
7. AEP Texas Central Company and AEP Texas North Company, Compliance Report, filed in Docket No. 44129 to the Public Utility Commission of Texas on July 7, 2016
8. Oncor Electric Delivery Company, Compliance Report, filed in Docket No. 44129 to the Public Utility Commission of Texas on July 15, 2016
9. CenterPoint Energy Houston Electric, LLC, Compliance Report, filed in Docket No. 44129 to the Public Utility Commission of Texas on January 7, 2016

**PUCT DOCKET NO. \_\_\_\_\_**

<b>APPLICATION OF ENTERGY</b>	<b>§</b>	
<b>TEXAS, INC. FOR APPROVAL OF</b>	<b>§</b>	<b>PUBLIC UTILITY COMMISSION</b>
<b>ADVANCED METERING SYSTEM</b>	<b>§</b>	
<b>(AMS) DEPLOYMENT PLAN, AMS</b>	<b>§</b>	<b>OF</b>
<b>SURCHARGE, AND NON-</b>	<b>§</b>	
<b>STANDARD METERING SERVICE</b>	<b>§</b>	<b>TEXAS</b>
<b>FEES</b>	<b>§</b>	

**DIRECT TESTIMONY**

**OF**

**RICHARD LAIN**

**ON BEHALF OF**

**ENTERGY TEXAS, INC.**

**JULY 2017**

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## **EXHIBITS AND WORKPAPERS**

Exhibit RL-1	Educational Background and Work Experience
Exhibit RL-2	Summary of AMS Surcharge Revenue Requirements Calculation
Exhibit RL-3	Billing Frequencies by Year
Exhibit RL-4	AMS Surcharge Calculation
Exhibit RL-5	Proposed Rate Schedule AMS
WP/RL Testimony	AMS Surcharge RR Model and AMS Allocation Model ( <b>Highly Sensitive</b> Provided on CD)

1                                   **I.       NAME AND QUALIFICATIONS**

2    Q1.   PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

3    A.    My name is Richard Lain. My business address is 919 Congress Avenue, Suite  
4           740, Austin, Texas 78701.

5

6    Q2.   BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

7    A.    I am a Manager of Regulatory Affairs for Entergy Texas, Inc. (“Company” or  
8           “ETI”).

9

10   Q3.   ON WHOSE BEHALF ARE YOU SUBMITTING THIS DIRECT  
11       TESTIMONY?

12   A.    I am submitting this Direct Testimony to the Public Utility Commission of Texas  
13       (“PUC” or “Commission”) on behalf of ETI.

14

15   Q4.   PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL  
16       BACKGROUND.

17   A.    A summary of my education and work experience is included as Exhibit RL-1.

**II. PURPOSE OF TESTIMONY**

Q5. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to support the Company's Application by presenting the proposed Advanced Metering System ("AMS")<sup>1</sup> Surcharge by customer rate class and the proposed AMS rate schedule for the proposed AMS Surcharge. In support of these proposed surcharge by rate class, I describe the model ETI used to calculate the surcharge revenue requirement (the "AMS Surcharge RR Model") as well as the model ETI used to allocate the surcharge revenue requirement to the applicable rate classes (the "AMS Allocation Model"), and finally how the related surcharge for each rate class was developed. ETI's investment included in its AMS Surcharge RR Model represents the estimated costs to acquire and deploy approximately 477,000 advanced meters and related systems as described more fully throughout the Direct Testimony of ETI witness Rodney W. Griffith. The AMS Surcharge RR Model and AMS Allocation Model are both Highly Sensitive and included in my workpapers as Highly Sensitive Protected Materials ("HSPM").

Q6. WHAT EXHIBITS ARE YOU SPONSORING?

A. I sponsor the exhibits listed in my table of contents.

---

<sup>1</sup> "AMS" is defined by the Commission at 16 Texas Admin. Code (T.A.C.) § 25.130(c)(2) as "[a] system, including advanced meters and the associated hardware, software, and communications systems, including meter information networks, that collects time-differentiated energy usage and performs the functions and has the features specified in this section."



**III. AMS SURCHARGE OVERVIEW**

Q7. PLEASE DESCRIBE THE PROPOSED COST RECOVERY MECHANISM FOR THE COSTS ASSOCIATED WITH ETI'S AMS DEPLOYMENT.

A. ETI proposes a surcharge consistent with Commission Rule 25.130(k). In particular, ETI proposes a surcharge to collect reasonable and necessary costs incurred in deploying AMS to residential customers and non-residential customers. The estimated costs of ETI's proposed AMS deployment are presented in the Direct Testimony of Mr. Griffith, and those costs are included in the AMS Surcharge calculation as detailed below. The projected costs are allocated by rate class as shown in the AMS Allocation Model, and the surcharge per rate class is calculated as further detailed below.<sup>2</sup>

**IV. REVENUE REQUIREMENT**

Q8. WHAT ARE THE COMPANY'S PROPOSED TOTAL AND AVERAGE ANNUAL REVENUE REQUIREMENTS?

A. ETI's proposed total revenue requirement is \$154 million over the proposed 12-year surcharge life. ETI's AMS Surcharge RR Model produces a total average annual revenue requirement of approximately \$13 million. The summary of the annual calculations of these amounts is provided in my Exhibit RL-2.

---

<sup>2</sup> Unmetered customers and transmission voltage customers will not be charged the AMS Surcharge.

1 Q9. PLEASE DESCRIBE THE AMS SURCHARGE RR MODEL THAT WAS  
2 USED TO CALCULATE THE TOTAL REVENUE REQUIREMENT.

3 A. To develop ETI's AMS Surcharge RR Model, ETI relied on the McKinsey Model  
4 that was adopted by the Commission in Project No. 33874, as well as a modified  
5 version of the McKinsey Model that was used in the most recently-approved  
6 AMS surcharge proceeding (PUCT Docket No. 38306). In particular, the  
7 McKinsey Model was modified to produce a net revenue requirement instead of a  
8 cost/benefit comparison. A complete copy of ETI's AMS Surcharge RR Model is  
9 included in the HSPM work papers to my testimony. A summary of the annual  
10 revenue requirement generated in the AMS Surcharge RR Model is attached  
11 hereto as Exhibit RL-2. ETI has attempted to employ the same adaptations to the  
12 McKinsey Model used by other Texas utilities in developing their AMS  
13 surcharges. These adaptations include:

- 14 • Removal of the net present value calculation from the AMS Surcharge RR  
15 Model;
- 16 • Expansion of the portions of the model that tracked the deployment schedule,  
17 growth rates, and calculation of meter and installation costs to differentiate  
18 between different meter types by rate class; and
- 19 • Removal of the following sections/tabs from the AMS Surcharge RR Model
  - 20 ○ Meter Reading Budget WS
  - 21 ○ WP-Rem. Costs & Neg Salvage
  - 22 ○ RevenueEnhancement
  - 23 ○ DistOpsSavings
  - 24 ○ AvoidedCapital

1 Finally, ETI adjusted the rate class surcharge calculation to calculate a two-tier  
2 surcharge. The first tier is five years, which is the length of the investment  
3 period, and the second tier is seven years. The revenue requirement for  
4 residential customers is collected over both tiers while the revenue requirement  
5 for other classes is collected over just the first tier.

6  
7 **A. Costs and Savings Used to Calculate Revenue Requirement**

8 Q10. PLEASE DESCRIBE THE COMPONENTS OF THE REVENUE  
9 REQUIREMENT CALCULATION.

10 A. The components included in the revenue requirement calculation include the  
11 return of and on AMS invested capital investment items, plus the projected annual  
12 or annualized operating expenses, minus the projected annual or annualized  
13 savings that are expected to result from AMS deployment.

14  
15 Q11. PLEASE GENERALLY DESCRIBE THE CAPITAL COSTS INCLUDED IN  
16 THE REVENUE REQUIREMENT CALCULATION.

17 A. The capital costs related to AMS deployment are those detailed in the direct  
18 testimony of Mr. Griffith. The major categories of capital costs presented by  
19 Mr. Griffith include meters and installation, communication network and  
20 communications head-end system, the Meter Data Management System  
21 (“MDMS”), Outage Management System (“OMS”), Distribution Management  
22 System (“DMS”), system integration, vendor costs for legacy systems, dedicated

1 internal resources, and capitalized property tax. A summary of the estimated  
2 plant in service amounts by year is shown below in my Table 1.

<b>Table 1. Estimated AMS Electric Plant Closings 2018-2021</b>					
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Estimated Annual AMS Electric Plant in Service Closings	\$49.2M	\$30.8M	\$33.2M	\$18.7M	\$0.1M
Estimated Cumulative Electric Plant in Service Closings	\$49.2M	\$80.0M	\$113.3M	\$131.9M	\$132.0M

3 Mr. Griffith provides these costs in greater detail on an annual basis in his  
4 Exhibit RWG-2.<sup>3</sup>

5  
6 Q12. DO THE CAPITAL COSTS INCLUDE THE COSTS OF INSTALLATION OF  
7 THE NEW METERS AS WELL AS THE COSTS OF REMOVAL AND  
8 DISPOSAL OF THE EXISTING METERS?

9 A. Yes. The Company's meter installation vendor, Honeywell Elster, included the  
10 costs to remove and dispose of the existing meters within the installation costs of  
11 the advanced meters, and I included those estimated costs in ETI's AMS  
12 Surcharge RR Model. Mr. Griffith provides more detail on these costs  
13 components. Further, the Company has assumed that there is no salvage value for

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<sup>3</sup> Highly Sensitive Exhibit RWG-2 describes Customer Education Expenses as part of the Implementation Costs of the AMS Project. However, Customer Education Expenses are included in O&M Expenses for the purposes of the revenue requirement calculation in the AMS Surcharge RR Model.

1 the existing meters due to the dwindling market application for these types of  
2 meters, but the vendor will provide a credit if the vendor does in fact receive any  
3 such salvage amounts. The Company will credit any salvage amount received to  
4 the value of the existing meter assets. Additionally, Company witness Jay A.  
5 Lewis explains ETI's proposed accounting treatment of the existing meters.

6  
7 Q13. ARE ANY OTHER RATE BASE ITEMS INCLUDED IN THE REVENUE  
8 REQUIREMENT CALCULATION?

9 A. Yes. ETI requests approval to create a regulatory asset to be included in rate base  
10 for two items: (1) projected customer education costs for 2016 and 2017 totaling  
11 approximately \$430,000 and (2) projected AMS proceeding costs for Cities  
12 totaling approximately \$117,000. ETI proposes to amortize the regulatory asset  
13 over three years beginning with the implementation of the AMS Surcharge.

14  
15 Q14. HOW IS THE RETURN ON AND OF RATE BASE CALCULATED IN THE  
16 REVENUE REQUIREMENT CALCULATION?

17 A. The return on AMS rate base is based on the average of the projected beginning  
18 and ending rate base for each 12-month period covered by the AMS Surcharge.  
19 The starting point for this calculation is the projected plant in service balance at  
20 the beginning of each 12-month period. This amount is then reduced by the  
21 projected accumulated provision for depreciation balance at that time. The  
22 balance is further reduced by the projected cash-tax benefit realized from  
23 accelerated depreciation on the assets, which would be recognized as accumulated

1 deferred income tax ("ADIT"). This will provide the projected rate base at the  
2 beginning of each applicable 12-month period. This same calculation is then  
3 done to determine the projected rate base at the end of each applicable 12-month  
4 period based on the amount of plant anticipated to be placed into service during  
5 that period, and the anticipated depreciation expense on the plant in-service. The  
6 average of these two values would then provide the average rate base during the  
7 recovery period. This average rate base balance for each 12-month period was  
8 multiplied by ETI's current pre-tax weighted-average cost of capital ("WACC")  
9 components to determine the return on rate base to be included in the revenue  
10 requirement calculation for the period. This return on rate base was broken out  
11 into the debt (interest), equity and federal income tax components in Exhibit RL-  
12 2, which provides a summary of the calculation of the revenue requirement. In  
13 addition, the projected depreciation expense for each 12-month period was also  
14 included in the calculation of the revenue requirement, representing the return of  
15 ETI's investment in plant.

16  
17 Q15. PLEASE DESCRIBE THE O&M COSTS INCLUDED IN THE REVENUE  
18 REQUIREMENT CALCULATION.

19 A. Total AMS O&M costs of \$29 million includes the \$25 million of ongoing O&M  
20 expenses as presented in Mr. Griffith's Highly Sensitive Exhibit RWG-3, as well

1 as the \$4 million of customer education expenses<sup>4</sup> included in Mr. Griffith's  
2 Highly Sensitive Exhibit RWG-2 and explained in the Direct Testimony and  
3 Exhibit HVP-1 of Mr. Pierce. These costs have been included in ETI's AMS  
4 Surcharge RR Model as O&M expense. These costs represent an estimate of the  
5 total O&M costs ETI will incur during the surcharge period to operate and  
6 maintain its AMS. In particular, these estimated costs cover such things as  
7 network and system O&M, data retrieval, software maintenance and upgrades,  
8 increased labor costs to support these systems, and web portal O&M expenses as  
9 detailed in the Direct Testimony of Mr. Griffith. Additional details of these O&M  
10 costs can be found in the AMS Surcharge RR Model and are also described by  
11 Mr. Griffith. None of the AMS-related O&M costs are currently included in  
12 ETI's base rates.

13  
14 Q16. WERE ANY O&M SAVINGS INCLUDED IN THE REVENUE  
15 REQUIREMENT CALCULATION?

16 A. Yes. The operating expense savings related to AMS deployment are detailed in  
17 the Direct Testimonies of Messrs. Lewis and Pierce. These witnesses support the  
18 total O&M savings of \$63 million related to meter reading, meter services, field  
19 data collection system support and reductions in write-offs that will be realized

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<sup>4</sup> Company witness Rodney W. Griffith provides the total spending for customer education expense in HSPM Exhibit RWG-2, which includes the Company's proposed deferred expenses in 2016 and 2017. These deferred expenses are excluded from the \$29 million O&M costs.

1 over the surcharge period. These savings are reflected in the AMS Surcharge RR  
2 Model included in the HSPM workpapers to my Direct Testimony.

3

4 Q17. HOW DOES THE REVENUE REQUIREMENT CALCULATION REFLECT  
5 RECOVERY OF THE COSTS OF THIS PROCEEDING?

6 A. ETI has included approximately \$1.4 million as the estimated cost of this  
7 proceeding in the AMS Surcharge RR Model. ETI's estimate included its own  
8 proceeding costs as well as the estimated Cities proceeding costs. ETI proposes  
9 to capitalize its own proceeding costs as actually incurred, and the actual costs  
10 incurred will be reviewed in the AMS reconciliation proceeding or proceedings.  
11 As noted above, for the estimated Cities proceeding costs, ETI proposes to defer  
12 those costs for recovery via a regulatory asset.

13

14 **B. Accounting Inputs Used in ETI's AMS Surcharge RR Model**

15 Q18. WHAT ESTIMATES AND ASSUMPTIONS WERE USED IN THE REVENUE  
16 REQUIREMENT CALCULATION REGARDING THE AMS DEPLOYMENT  
17 PERIOD?

18 A. The major estimates and assumptions included in the revenue requirement  
19 calculation are: the time periods for investment and meter deployment, customer  
20 growth rates, meter counts by rate class, cost escalation rates, rates of return on  
21 rate base, book depreciation and amortization rates, tax depreciation rates, taxes  
22 other than income, and cost loaders. I will discuss each of these below.



1 Q19. WHAT PERIODS OF TIME WERE USED IN THE REVENUE  
2 REQUIREMENT CALCULATION?

3 A. ETI's AMS Surcharge RR Model assumes a meter deployment period beginning  
4 in January 2019 and continuing through December 2021, which is consistent with  
5 the testimony of Mr. Griffith. In addition, Mr. Griffith describes that the AMS  
6 deployment costs will end in 2022 after the communication network optimization  
7 activities following full meter deployment are completed in early 2022. ETI's  
8 proposed surcharge would be in effect for a 12-year period beginning in January  
9 2018 and running through December 2029 (seven years after the 2022  
10 communication network optimization process is complete and all assets are placed  
11 in service).

12  
13 Q20. WHAT ASSUMPTION WAS MADE IN THE REVENUE REQUIREMENT  
14 CALCULATION REGARDING THE GROWTH IN ETI'S CUSTOMERS AND  
15 RATE CLASSES SUBJECT TO THE SURCHARGE?

16 A. Using historic data and short-term forecasts, a long-term forecast of the estimated  
17 number of customers receiving AMS meters by rate class was developed. This  
18 long-term forecast was then used to estimate the number of active AMS  
19 customers over the surcharge period in ETI's AMS Surcharge RR Model to  
20 determine the number of meters needed. The customer forecast is included as a  
21 workpaper in the AMS Surcharge RR Model.

1 Q21. WHAT ESCALATION RATES WERE USED FOR LABOR, MATERIALS,  
2 AND OTHER COSTS IN THE REVENUE REQUIREMENT CALCULATION?

3 A. In general, ETI used an annual escalation rate of 2% for labor, materials, and all  
4 other costs included in its AMS Surcharge RR Model, unless otherwise indicated  
5 within the model. This escalation percentage is consistent with the Company's  
6 forecast of labor and material cost increases. The estimated costs of the advanced  
7 meters were not escalated as those costs were negotiated in a fixed-price contract.

8

9 Q22. WHAT RATE OF RETURN ON INVESTMENT WAS USED IN THE  
10 REVENUE REQUIREMENT CALCULATION?

11 A. Consistent with Commission Rule 25.130(k)(2), a WACC of 8.22% was used,  
12 which is the Commission-approved rate of return in ETI's most recent rate case in  
13 Docket No. 41791. This amount was also used to calculate the pre-tax WACC,  
14 10.79%, in ETI's AMS Surcharge RR and Allocation Models.

15

16 Q23. WHAT INPUTS WERE USED IN THE REVENUE REQUIREMENT  
17 CALCULATION FOR DEPRECIATION EXPENSE?

18 A. Commission Rule 25.130(k)(3) states: "In the request for surcharge proceeding,  
19 an electric utility may propose a surcharge methodology, but the commission  
20 prefers the stability of a levelized amount, and an amortization period ranging  
21 from five to seven years, depending on the useful life of the meter." Similar to  
22 how the other Texas utilities addressed depreciation in their AMS surcharge  
23 revenue requirement calculations, and as further described in the Direct Testimony

1 of Mr. Lewis, the Company assumed a seven-year depreciation period for all of  
2 the AMS meters and related infrastructure. Depreciation of the AMS assets will  
3 begin in the month following when the asset is placed in service. For modeling  
4 purposes, the Company used a half-year convention.

5

6 Q24. WHAT ASSUMPTIONS WERE MADE IN THE REVENUE REQUIREMENT  
7 CALCULATION REGARDING THE TAX LIFE OF ASSETS?

8 A. ETI assumed the use of the 10-year Modified Accelerated Cost Recovery System  
9 (“MACRS”) for the advanced meters and communications network infrastructure  
10 assets, 5-year MACRS on computer hardware, and a 3-year Straight-Line on the  
11 AMS software assets included in the AMS Surcharge RR Model.

12

13 Q25. HOW WAS FEDERAL INCOME TAX ADDRESSED IN THE REVENUE  
14 REQUIREMENT CALCULATION?

15 A. Federal income tax expense was addressed in the revenue requirement calculation  
16 through the use of the pre-tax WACC in the determination of the rate of return on  
17 rate base by multiplying the statutory federal income tax rate of 35% times the  
18 pre-tax return on equity.

19

20 Q26. HOW WERE AD VALOREM TAXES ADDRESSED IN THE REVENUE  
21 REQUIREMENT CALCULATION?

22 A. Ad valorem taxes estimated for the surcharge period were based on each prior  
23 year-end AMS net plant in service multiplied by an annual ad valorem effective

1 tax rate. The assumed average effective tax rate for AMS net plant in service over  
2 the asset life is approximately 2%.

3

4 Q27. HOW WAS THE TEXAS GROSS MARGIN TAX ADDRESSED IN THE  
5 REVENUE REQUIREMENT CALCULATION?

6 A. The Texas gross margin tax is based on total revenues less cost of goods sold.  
7 Distribution meters and related costs are not included in cost of goods sold.  
8 Therefore, the Texas gross margin tax expense estimated for the surcharge period  
9 is based on AMS surcharge revenues taxed at the statutory tax rate of 0.75%.

10

11 Q28. WHAT ASSUMPTIONS WERE MADE REGARDING SALES AND USE TAX  
12 RATES IN THE REVENUE REQUIREMENT CALCULATION?

13 A. The revenue requirement calculation in the AMS Surcharge RR Model includes  
14 the estimated applicable Texas rates in estimating the sales and use tax expenses  
15 except that the Arkansas sales tax rate is applied to certain infrastructure and IT  
16 costs that are expected to originate within the state of Arkansas.

17

18 Q29. PLEASE DESCRIBE THE COST LOADERS THAT WERE USED IN THE  
19 REVENUE REQUIREMENT CALCULATION.

20 A. Cost loading assumptions using blended loader rates for payroll, materials,  
21 construction overheads, and AFUDC, as well as a contingency rate, have been  
22 included for estimating the AMS-related costs in a manner consistent with  
23 applicable accounting requirements and industry practice. The loader rates are

1 identified on the “WP\_Loaders” tab in the AMS Surcharge RR Model included in  
2 my HSPM workpapers. Annual blended rates were developed by the type of cost  
3 and include the applicable loader rates listed above. The appropriate blended  
4 loader rates are applied after the contingency has been calculated.

5  
6 **V. ALLOCATION OF THE AMS REVENUE REQUIREMENT TO RATE**  
7 **CLASSES AND CALCULATION OF RATE CLASS SURCHARGES**

8 Q30. PLEASE DESCRIBE HOW THE AMS REVENUE REQUIREMENT IS  
9 ALLOCATED TO THE ELIGIBLE RATE CLASSES.

10 A. The AMS revenue requirement consists of two major components: (1) the  
11 projected installed costs of the AMS meters and (2) all other costs necessary to  
12 support the AMS meters. The installed costs of the AMS meters are directly  
13 assigned to the eligible rate classes based on each class’s meter type composition  
14 and the installed costs of the AMS meter that will replace the current meter,  
15 which is described further below. The other costs necessary to support the AMS  
16 meters are allocated to all of the eligible classes based on the AMS meter  
17 investment allocator for each AMS-eligible rate class.

18  
19 Q31. PLEASE DESCRIBE THE DEVELOPMENT OF THE AMS METER  
20 INVESTMENT ALLOCATOR.

21 A. The total meter investment for each class is based on the specific meter costs for  
22 each type of AMS meter replacing a current non-transmission voltage customer’s  
23 meter, and each class’s composition of the AMS meter types and other meter-

1 related costs not specifically associated with the meter type. The meter types and  
2 costs are provided by Mr. Griffith. After all the meter types are identified and  
3 counted for each class, total cost by class is calculated, and the other meter-related  
4 costs are directly assigned to each class using the number of AMS meters  
5 associated with each AMS-eligible rate class. The total meter investment by class  
6 is the basis of the meter investment allocator used to allocate all of the other costs  
7 necessary to support the AMS meters to each of the AMS-eligible rate classes.  
8 This allocation factor development is shown on the “CapEx” tab in the AMS  
9 Allocation Model included in the HSPM workpapers to my testimony.

10

11 Q32. WHY IS THE PROPOSED ALLOCATION FACTOR APPROPRIATE?

12 A. The use of meter investment by rate class represents the measure of cost  
13 responsibility for the AMS meter deployment for each rate class. The total costs  
14 for the AMS meter investment for each rate class over the AMS cost recovery  
15 period represents the cost responsibility for the AMS infrastructure that will be  
16 used by all eligible customers receiving meter equipment and services under the  
17 AMS deployment. The rate class AMS revenue requirement is shown in the AMS  
18 Allocation Model.

19

20 Q33. ARE THERE ANY OTHER ITEMS INCLUDED IN THE AMS ALLOCATION  
21 MODEL THAT AFFECT THE SURCHARGE CALCULATION?

22 A. Yes. Similar to the methodology utilized by other Texas utilities, ETI proposes to  
23 defer by rate class the cumulative monthly periodic difference between AMS

1 Surcharge revenues and actual AMS revenue requirements based on the incurred  
2 costs, net of cost savings, plus allowed return as a regulatory asset or regulatory  
3 liability on the books and records of the Company. This deferral reflects, among  
4 other things, a timing difference between the actual revenue requirement of the  
5 costs incurred to deploy AMS and the revenues collected. The timing difference  
6 associated with this deferral is expected to reverse by the end of the AMS  
7 surcharge period. The AMS levelized surcharge rates are calculated so that this  
8 timing difference is expected to be zero at the end of the AMS Surcharge period.  
9 However, to the extent that actual revenues and expenses differ from those  
10 projected in the calculation of the AMS Surcharge, there may be a regulatory  
11 asset or liability balance remaining at the end of the AMS surcharge period.  
12 Additionally, the regulatory asset or liability balance at any given point in time  
13 will represent the cumulative over or under collection of actual revenues to  
14 revenue requirement. ETI proposes that interest income on the regulatory asset  
15 and interest expense on the regulatory liability will accrue based on ETI's  
16 WACC. Accordingly, ETI requests that specific provisions be included in the  
17 final order in this proceeding authorizing the creation of this regulatory asset or  
18 regulatory liability and the inclusion of the impacts of this regulatory asset or  
19 regulatory liability in the AMS Surcharge rates. The impact of the projected  
20 regulatory asset and liability amounts is reflected in ETI's AMS Allocation Model  
21 and the calculation of the AMS Surcharge rates. ETI further requests that when  
22 the AMS Surcharge is terminated for any rate class, any remaining regulatory  
23 asset or liability balance for that rate class shall be included in another rate-

1 making mechanism, such that the regulatory liability balance is returned to  
2 customers, or the regulatory asset balance is recovered from customers.

3

4 Q34. PLEASE DESCRIBE HOW YOU CALCULATED THE LEVELIZED RATE  
5 CLASS AMS SURCHARGE RATES.

6 A. To determine the levelized AMS Surcharges by rate class the rate class revenue  
7 requirements were divided by the forecasted average number of bills rendered by  
8 rate class over the appropriate cost recovery period (depending on rate class) and  
9 were solved to include the interest impacts of the rate class regulatory asset or  
10 regulatory liability. The resulting rate class surcharges are fixed monthly amounts  
11 to be recovered over the 12-year surcharge period. However, ETI proposes that  
12 the residential rate class surcharge include two rate tiers to be calculated over two  
13 time periods. The first tier occurs over the five year investment period, and the  
14 second tier occurs over the remaining seven years of the asset life. Similarly, the  
15 non-residential rate class surcharges include two rate tiers that occur over the  
16 same five and seven-year time periods. However, the non-residential rate class  
17 surcharges are designed to recover the entire 12-year surcharge period revenue  
18 requirement in the first tier, and the second tier non-residential rate class  
19 surcharge rates are set to zero. ETI's AMS Allocation Model "Carrying Charge"  
20 tab includes the calculation of the interest component of the rate class regulatory  
21 asset or regulatory liability resulting from the revenue requirement timing  
22 differences described above. The billing frequencies are shown in my Exhibit RL-



1           3, while the rate class revenue requirements, inclusive of interest, and the  
2           proposed surcharges by rate class are shown in my Exhibit RL-4.

3

4   Q35.   PLEASE DESCRIBE THE PROPOSED RATE SCHEDULE AMS.

5   A.     Proposed Rate Schedule AMS (Advanced Metering Service Surcharge Rider) is  
6           included as Exhibit RL-5 to my testimony. It establishes the AMS Surcharge  
7           rates for each applicable rate class.

8

9                   **VI.    AMS SURCHARGE TRACKING, REPORTING, AND**  
10                   **RECONCILIATION**

11   Q36.   WILL THE COMPANY TRACK AND REPORT AMS CAPITAL COSTS,  
12           REVENUES, AND OPERATING COSTS AND SAVINGS RELATED TO THE  
13           PLANNED DEPLOYMENT?

14   A.     Yes. The recording and tracking of AMS costs, revenues, and operating costs are  
15           necessary to support ETI's AMS annual reporting and any subsequent AMS  
16           reconciliation proceedings. In accordance with Commission Rule 25.130(k)(5),  
17           ETI will file annual reports with the Commission updating the cost information  
18           relied upon in setting the surcharge. Consistent with that rule, ETI's annual  
19           reports will include the actual costs spent to date in the deployment of its AMS  
20           and the actual net operating savings from AMS deployment, and how those  
21           amounts compare to the projections used to set the surcharge.

22                   Commission Rule 25.130(k)(6) provides that all costs recovered through  
23           the surcharge shall be reviewed in a reconciliation proceeding or proceedings.



1 Q1. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

2 A. I hold a Bachelor of Business Administration degree in Management and a Bachelor  
3 of Arts degree in Government from the University of Texas at Austin. I also hold a  
4 Master of Business Administration degree from the University of Nevada, Las Vegas,  
5 with a concentration in finance. In addition, I hold the designation of Chartered  
6 Financial Analyst (“CFA”), which is awarded by the CFA Institute, based in  
7 Charlottesville, Virginia, after successful completion of its three-part examination  
8 process over a minimum three-year time period. The curriculum for the CFA charter  
9 covers a defined body of knowledge fundamental to the practice of investment  
10 management, and includes areas of finance, accounting, economics, statistics, and  
11 ethical and professional conduct. Finally, I am also a Certified Public Accountant  
12 (“CPA”) licensed by the Texas State Board of Public Accountancy.

13

14 Q2. PLEASE DESCRIBE YOUR PROFESSIONAL UTILITY INDUSTRY  
15 EXPERIENCE.

16 A. In December 1998, I began my career in the utility industry as a financial analyst at  
17 the Public Utility Commission of Texas and after accepting progressively higher  
18 positions of responsibility, in 2008, I became Director of the Tariff and Rate Analysis  
19 section in the Commission’s Rate and Regulation Division. In addition to managing  
20 the employees of the Tariff and Rate Analysis section, my principal responsibilities as  
21 director included performing costing and pricing analyses of regulated and non-  
22 regulated electricity and telecommunications providers, and preparing and presenting

1 testimony as an expert witness on rate-related issues in docketed proceedings before  
2 the Commission and the State Office of Administrative Hearings.

3 In March 2012, I accepted a position with GDS Associates, Inc. in Austin, TX  
4 as a Project Manager. In this role, I was responsible for conducting analyses and  
5 providing deliverables and testimony on electric, gas, and water utility cost-of-service  
6 studies, revenue requirements, cost allocation, and rate design. While employed at  
7 GDS Associates, Inc., in addition to filing testimony at the Commission, I filed  
8 testimony in three gas rate cases before the Railroad Commission of Texas, and in  
9 one electric rate case before the Michigan Public Service Commission.

10 In January 2014, I accepted my current position with Entergy Texas, Inc. as  
11 Manager, Regulatory Affairs. In this role, I am responsible for executing strategies  
12 that meet Company objectives by coordinating and conducting internal processes in  
13 the provision of regulatory deliverables, supporting organization positions with  
14 internal and external parties, and coordinating, preparing, and sponsoring testimony  
15 before regulatory agencies.

16  
17 Q3. HAVE YOU PREVIOUSLY PRESENTED DIRECT TESTIMONY IN  
18 REGULATORY PROCEEDINGS?

19 A. Yes. Below, I provide a list of regulatory proceedings in which I have presented  
20 direct testimony.

**PREVIOUS DIRECT TESTIMONY BY RICHARD LAIN**

**Filed at the Public Utility Commission of Texas:**

**Docket No. 47233** – *Application of Entergy Texas, Inc. for Approval to Amend Its Distribution Cost Recovery Factor* – June 1, 2017

**Docket No. 46357** – *Application of Entergy Texas, Inc. for Approval to Amend Its Transmission Cost Recovery Factor* – September 16, 2016

**Docket No. 45084** – *Application of Entergy Texas, Inc. for Approval of a Transmission Cost Recovery Factor* – September 11, 2015

**Docket No. 45083** – *Application of Entergy Texas, Inc. for Approval to Amend Its Distribution Cost Recovery Factor* – September 4, 2015

**Docket No. 44704** – *Application of Entergy Texas, Inc. for Authority to Change Rates* – June 12, 2015

**Docket No. 43111** – *Application of Entergy Texas, Inc. for Authority to Implement a Distribution Cost Recovery Factor Pursuant to P.U.C. Subst. R. 25.243* – September 18, 2014

**Docket No. 41474** – *Application of Sharyland Utilities, L.P. to Establish Retail Delivery Rates, Approve Tariff for Retail Delivery Service, and Adjust Wholesale Transmission Rate* – May 31, 2013

**Docket No. 41445** – *Application of Sharyland Utilities, L.P. to Amend Energy Efficiency Cost Recovery Factor and for Good Cause Exception to Administrative Spending Cap* – May 1, 2013

**Docket No. 38480** – *Application of Texas-New Mexico Power Company for Authority to Change Rates* – November 15, 2010

- 1     **Docket No. 38339** – *Application of CenterPoint Energy Houston Electric, LLC for Authority*  
2     *to Change Rates* – September 17, 2010
- 3     **Docket No. 37744** – *Application of Entergy Texas, Inc. for Authority to Change Rates and*  
4     *Reconcile Fuel Costs* – June 16, 2010
- 5     **Docket No. 37482** -- *Application of Entergy Texas, Inc. for Approval of a Power Cost*  
6     *Recovery Factor* – January 29, 2010
- 7     **Docket No. 36952** – *Application of CenterPoint Energy Houston Electric, LLC, to Defer*  
8     *Energy Efficiency Cost Recovery Factor and For Approval of an Energy Efficiency Cost*  
9     *Recovery Factor* -- August 3, 2009
- 10    **Docket No. 36025** – *Application of Texas-New Mexico Power Company for Authority to*  
11    *Change Rates* – June 3, 2009
- 12    **Docket No. 35717** – *Application of Oncor Electric Delivery Company LLC for Authority to*  
13    *Change Rates*– December 10, 2008
- 14    **Docket No. 35639** – *Application of CenterPoint Energy Houston Electric, LLC for Approval*  
15    *of Deployment Plan and Request for Surcharge for an Advanced Metering System* – July 8,  
16    2008
- 17    **Docket No. 34723** – *Petition for Review of Monthly Per Line Support Amounts from the*  
18    *Texas High Cost Universal Service Plan Pursuant to PURA § 56.031 and Subst. R. § 26.403*  
19    – February 29, 2008
- 20    **Docket No. 33734** – *Application of Electric Transmission Texas, LLC for a Certificate of*  
21    *Convenience and Necessity, for Regulatory Approvals, and Initial Rates* – June 18, 2007
- 22    **Docket No. 33310** – *Application of AEP Texas North Company for Authority to Change*  
23    *Rates*– March 23, 2007

- 1    **Docket No. 33309** – *Application of AEP Texas Central Company for Authority to change*  
2    *Rates* – March 23, 2007
- 3    **Docket No. 31462** – *Application of the City of Austin D/B/A Austin Energy to Change Rates*  
4    *for Wholesale Transmission Service* – November 22, 2005
- 5    **Docket No. 28906** – *Application of LCRA Transmission Services Corporation to Change*  
6    *Rates*– May 11, 2004
- 7    **Docket No. 25421** – *Application of LCRA Transmission Services Corporation to Change*  
8    *Rates for Transmission and Transformation Utility Cost of Service*– October 14, 2002
- 9    **Docket No. 25421** – *Application of Bandera Electric Cooperative, Inc. to Change Rates for*  
10    *Transmission Utility Cost of Service* – October 14, 2002
- 11    **Docket No. 19950** – *Application of Corpus Christi Power and Light for a Certificate of*  
12    *Convenience and Necessity in Nueces and San Patricio Counties, Texas* – October 25, 2001
- 13    **Docket No. 24336** – *Application of Texas-New Mexico Power for Approval of Unbundled*  
14    *Cost of Service Rate Pursuant to PURA §39.201 and Public Utility Commission Substantive*  
15    *Rule §25.344* – February 2, 2001
- 16    **Docket No. 22356** – *Application of Entergy Gulf States, Inc. for Approval of Unbundled*  
17    *Cost of Service Rate Pursuant to PURA §39.201 and Public Utility Commission Substantive*  
18    *Rule §25.344* – January 16, 2001
- 19    **Docket No. 22355** – *Application of Reliant Energy HL&P for Approval of Unbundled Cost*  
20    *of Service Rate Pursuant to PURA §39.201 and Public Utility Commission Substantive Rule*  
21    *§25.344* – December 18, 2000

- 1    **Docket No. 22352** – *Application of Central Power and Light Company for Approval of*  
2    *Unbundled Cost of Service Rate Pursuant to PURA §39.201 and Public Utility Commission*  
3    *Substantive Rule §25.344 – November 29, 2000*
- 4    **Docket No. 22350** – *Application of TXU Electric Company for Approval of Unbundled Cost*  
5    *of Service Rate Pursuant to PURA §39.201 and Public Utility Commission Substantive Rule*  
6    *§25.344 – November 20, 2000*
- 7    **Docket No. 21711** – *Application of Texas Municipal Power Agency to Change Rates for*  
8    *Wholesale Transmission Service – May 5, 2000*
- 9    **Docket No. 20292** – *Application of Sharyland Utilities L.P. for a Certificate of Convenience*  
10   *and Necessity in Hidalgo County, Texas– April 23, 1999*



**Filed at the Railroad Commission of Texas:**

**Gas Utilities Docket No. 10170** – *Statement of Intent filed by Atmos Energy Corp., to Increase Gas Utility Rates Within the Unincorporated Areas Served by the Atmos Energy Corp., Mid-Tex Division, and consolidated dockets* – August 14, 2012

**Gas Utilities Docket No. 10174** - *Statement of Intent filed by Atmos Energy Corp., to Increase Gas Utility Rates Within the Unincorporated Areas Served by the Atmos Energy Corp., West Texas Division, and consolidated dockets* – August 14, 2012

**Gas Utilities Docket No. 10182** – *Statement of Intent of CenterPoint Energy Resources Corp., D/B/A CenterPoint Energy Entex and CenterPoint Energy Texas Gas to Increase Rates on a Division-Wide Basis in the Beaumont/East Texas Division* – October 23, 2012

**Filed at the Michigan Public Service Commission:**

**Case No. U-17437** – *In the Matter of the Application of DTE Electric Company for Approval of a Transitional Cost Recovery Plan and Retail Electric Tariffs Associated with the Disposition of the City of Detroit Public Lighting System* – November 25, 2013

**Entergy Texas, Inc.**  
**Advanced Metering System Surcharge**  
**Summary of AMS Surcharge Revenue Requirement**  
(\$000's unless otherwise noted)

<b>Surcharge</b>	<b>Total</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>
O&M Benefits	(\$62,609)	\$0	(\$1,464)	(\$4,726)	(\$7,704)	(\$8,700)	(\$8,774)	(\$9,154)	(\$9,231)	(\$7,647)	(\$4,162)	(\$1,049)	\$0
O&M Expense	\$29,170	\$452	\$2,685	\$3,551	\$3,440	\$2,987	\$3,037	\$3,089	\$3,141	\$2,856	\$2,238	\$1,694	\$0
Depreciation Expense	\$131,998	\$3,514	\$9,231	\$13,807	\$17,514	\$18,852	\$18,857	\$18,857	\$15,343	\$9,626	\$5,050	\$1,343	\$4
Amortization Expense	\$546	\$182	\$182	\$182	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interest Expense	\$14,315	\$675	\$1,640	\$2,263	\$2,609	\$2,350	\$1,796	\$1,274	\$814	\$471	\$248	\$120	\$55
Property Taxes	\$9,136	\$0	\$897	\$1,324	\$1,710	\$1,737	\$1,369	\$998	\$625	\$320	\$128	\$27	\$0
Federal Income Taxes	\$10,609	\$500	\$1,216	\$1,677	\$1,933	\$1,742	\$1,331	\$944	\$603	\$349	\$184	\$89	\$41
Return On Equity (On Average Rate Base)	\$19,702	\$928	\$2,258	\$3,115	\$3,591	\$3,235	\$2,472	\$1,753	\$1,121	\$648	\$341	\$165	\$75
Texas Gross Margin Tax	\$1,155	\$47	\$126	\$160	\$175	\$168	\$152	\$134	\$94	\$50	\$30	\$18	\$1
<b>Total Surcharge Revenue Requirement [1]</b>	<b>\$154,021</b>	<b>\$6,298</b>	<b>\$16,770</b>	<b>\$21,353</b>	<b>\$23,268</b>	<b>\$22,371</b>	<b>\$20,241</b>	<b>\$17,895</b>	<b>\$12,511</b>	<b>\$6,674</b>	<b>\$4,057</b>	<b>\$2,407</b>	<b>\$177</b>

**Entergy Texas, Inc.**  
**Advanced Metering System Surcharge**  
**Summary of AMS Bill Frequencies**

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
AMS CLASS TOTAL	Bills Per Year (1)												
RESIDENTIAL	4,689,108	4,749,120	4,813,632	4,878,732	4,945,788	5,014,500	5,081,712	5,147,712	5,215,020	5,278,524	5,337,492	5,395,704	60,547,044
SMALL GENERAL SERVICE	410,400	416,004	421,488	426,900	432,348	437,892	443,508	449,124	454,776	460,332	465,912	471,624	5,290,308
GENERAL SERVICE	240,394	243,656	246,906	250,180	253,490	256,848	260,266	263,684	267,162	270,628	274,142	277,691	3,105,047
LARGE GENERAL SERVICE	4,643	4,702	4,772	4,831	4,890	4,948	5,019	5,078	5,136	5,183	5,266	5,313	59,780
LARGE INDUSTRIAL POWER SERVICE	192	192	192	192	192	192	192	192	192	192	192	192	2,304
<b>TOTAL</b>	<b>5,344,737</b>	<b>5,413,674</b>	<b>5,486,990</b>	<b>5,560,835</b>	<b>5,636,708</b>	<b>5,714,380</b>	<b>5,790,697</b>	<b>5,865,790</b>	<b>5,942,286</b>	<b>6,014,859</b>	<b>6,083,003</b>	<b>6,150,524</b>	<b>69,004,483</b>

**NOTES:**

(1) These numbers represent the TOTAL number of estimated non-transmission voltage, active, metered customer accounts per rate class per year. Source is the Yearly Bills tab in ETI's filed AMS Allocation Model.

**Entergy Texas, Inc.**  
**Advanced Metering System Surcharge**  
**Summary of AMS Surcharge Per Rate Schedule**

<b>Surcharge January 2018 - December 2022</b>				
<b>Tariff Class</b>	<b>Total Revenues</b>	<b>Total Bills</b>	<b>Surcharge</b>	
RES	\$ 76,671,613	24,076,380	\$	3.18
SGS	\$ 10,088,708	2,107,140	\$	4.79
GS	\$ 5,855,493	1,234,626	\$	4.74
LGS	\$ 118,170	23,837	\$	4.96
LIPS	\$ 4,399	960	\$	4.58
<b>TOTAL</b>	<b>\$ 92,738,382</b>	<b>27,442,943</b>		

<b>Surcharge January 2023 - December 2029</b>				
<b>Tariff Class</b>	<b>Total Revenues</b>	<b>Total Bills</b>	<b>Surcharge</b>	
RES	\$ 63,190,511	36,470,664	\$	1.73
SGS	\$ -	3,183,168	\$	-
GS	\$ -	1,870,420	\$	-
LGS	\$ -	35,943	\$	-
LIPS	\$ -	1,344	\$	-
<b>TOTAL</b>	<b>\$ 63,190,511</b>	<b>41,561,540</b>		

\* The total revenue requirement by rate class is calculated in ETI's filed Allocation Model.

## SECTION III RATE SCHEDULES

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**ENTERGY TEXAS, INC.**  
ELECTRIC SERVICE

SCHEDULE AMS

Sheet No.: 100  
Effective Date: 1-2-18  
Revision No.: 0  
Supersedes: New Schedule  
Schedule Consists of: One Sheet

### ADVANCED METERING SYSTEM SURCHARGE RIDER

#### I. PURPOSE

The Advanced Metering System Surcharge Rider ("Rider AMS") recovers Entergy Texas, Inc. cost to provide an Advanced Metering System ("AMS") to customers during the cost recovery period approved by the Public Utility Commission of Texas.

#### II. APPLICABILITY

Pursuant to 16 TEX. ADMIN. CODE (TAC) § 25.130, Rider AMS is applicable to retail customers receiving metered service. Rider AMS is not applicable to customers whose load is unmetered or to transmission voltage customers.

#### III. MONTHLY SURCHARGE AMOUNT

The AMS Surcharge for each of the Company's applicable retail rate schedules is as follows:

##### Billing Months of January 2018 through December 2022

<u>Rate Class</u>	<u>Rate Schedules</u>	<u>AMS Surcharge</u>
Residential	RS, RS-TOD	\$3.18 per month
Small General Service Metered Service	SGS	\$4.79 per month
General Service - Other than Transmission Customers	GS, GS-TOD	\$4.74 per month
Large General Service - Other than Transmission Customers	LGS, LGS-TOD	\$4.96 per month
Large Industrial Power Service – Other than Transmission Customers	LIPS, LIPS-TOD	\$4.58 per month
Lighting	SHL, LS-E, ALS, RLU, SHL-LED	\$0.00 per month

##### Billing Months of January 2023 through December 2029

<u>Rate Class</u>	<u>Rate Schedules</u>	<u>AMS Surcharge</u>
Residential	RS, RS-TOD	\$1.73 per month
Small General Service Metered Service	SGS	\$0.00 per month
General Service - Other than Transmission Customers	GS, GS-TOD	\$0.00 per month
Large General Service - Other than Transmission Customers	LGS, LGS-TOD	\$0.00 per month
Large Industrial Power Service – Other than Transmission Customers	LIPS, LIPS-TOD	\$0.00 per month
Lighting	SHL, LS-E, ALS, RLU, SHL-LED	\$0.00 per month

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